Why is this important? It is important because there are three major instruments. There are many more, but I will only mention three. No. 1, it will constantly aim an instrument at the Sun so when there is an additional solar explosion, which is a nuclear explosion on the face of the Sun, and all that additional radiation starts coming in what is known as solar wind to the United States, we can prepare for that nuclear radiation and save our satellites, save certain electrical grid systems, and warn pilots who are flying a route over the poles where the magnetic field of the Earth does not protect and repel against the nuclear radiation coming from the Sun, which is extremely important to commercial satellites, commercial systems on the ground, and is especially important to our military warning satellites.

We are fortunate there is a satellite that was put up in the late 1990s. Its acronym is ACE. It had a design life of 5 years, which would have been the early 2000s. This little satellite keeps producing. It measures the solar wind, or nuclear radiation, coming from the Sun about every 40 minutes. It was supposed to have been dead years ago. It is still perking.

This satellite will replace it and will warn us of a nuclear blast—not every 40 minutes but much more rapidly, like every 1 or 2 minutes, which will give us the ability to save our systems on the ground and in orbit. That is one instrument.

Now, since this payload will be at a neutrally buoyant point where the Earth's gravitational pull stops and the Sun's gravitational pull stops—called the Lagrangian Point No. 1, or L–1, between the Earth and the Sun—which is a little less than 1 million miles from the Earth, and because the gravitational pull of the Sun is much greater—it is about 92 million miles from the Sun—it will stay there and constantly look at the Sun in one direction, and in the other direction it looks at the Earth.

These are the other two instruments. One instrument will constantly measure the heat coming from the Sun that is being absorbed by the Earth, and that instrument then also measures the amount of heat that is reflected off of the Earth and radiated back out into space.

So if you want to measure exactly how the Earth is heating up, you get this very precise measurement of what is being absorbed minus what is being radiated back out into space, and you will know exactly how much heat the Earth is absorbing and how this planet is heating up.

The final instrument is one that was conceived of by then-Vice President Al Gore, who at my invitation was there yesterday. I don't know if he is going to be able to stay over until tomorrow to see the launch.

What Al Gore knew was that 42 years ago was the last time we had a full sunlit picture of the Earth. It was by the Apollo 17 astronauts on the face of the moon. They got the Earth just at the exact time. They were able to photograph one-half of the Earth, which was lit by the Sun behind the astronauts on the moon. That was the last time we had a full, live picture of the Earth.

We have had many other pictures, but what they are is a strip here and a snippet there, and they are all stitched together—even though they were taken at different times—to make a composite of what the Earth looks like.

What the satellite Discovery will do, as its camera looks straight back at Earth, taking about 13 photographs in a 24-hour period, since the satellite is between the Earth and the Sun, it is able to look back with the telephoto lens and it will always see the sunlit side of the entire side of the Earth as it rotates on its axis every 24 hours and as it rotates around the Sun every 365 days. That will give us a new perspective of the overview effect of what this home that we call planet Earth is and what it looks like on a daily basis every 2 hours.

I yield the floor.

The PRESIDING OFFICER. The Senator from Hawaii.

CLIMATE CHANGE

Mr. SCHATZ. Madam President, the Keystone legislation is likely to move to the President's desk this week after the House takes it up, and he will veto it. The votes are not there to override a veto, either in the Senate or the House. Legislation has a natural lifecycle, and this piece of legislation is reaching the end of its lifecycle. This debate is almost over.

So where are we when it comes to American energy policy? The debate that occurred on Keystone was no doubt an important one, but it was exactly upside down. Congress and the media treated the Keystone bill as if it would settle American energy policy once and for all, when in fact it was and is a tiny sliver of debate. American energy policy is not defined by one project or one piece of infrastructure, however contentious it may be.

In order to have a real energy conversation, we have to agree on the facts, and this body cannot be the only place where there is a lack of consensus on the basic facts. That is why Senator WHITEHOUSE's amendment, my amendment, Senator HOEVEN's amendment, and those of many others were so important.

Last month's climate votes were illuminating and encouraging. First, Senator WHITEHOUSE's language, which simply stated that climate change was not a hoax, received a nearly unanimous vote. Believe it or not, that is progress. My amendment, which stated that climate change is real, caused by humans, and has real and significant impacts, received a bare majority of the votes, with five Republicans supporting it. Senator HOEVEN's amendment had similar language, as well as some pro-Keystone language, and it attracted a dozen or so Republican votes.

What is the significance of all of this? It is very simple. Without acknowledging the problem, we cannot even begin to work on it. The wall of denial has begun to crack. So now we have a majority—and depending on how it is phrased, even a potential supermajority—in the Senate saying that climate change is real.

Now, most every serious person in public life either admits the basic facts of climate change or is on their way to getting there, and that is a good thing. Now the question is: What should we do? Given our regional differences, ideological differences, and the partisan divide, what comes next?

Later this year or next, we will see efforts to repeal a number of important environmental rules, especially the administration's clean power plan, which will regulate carbon pollution from existing and new powerplants, but that too is highly unlikely to result in anything other than a Presidential veto.

So are there any areas for potential common ground?

I think we saw real glimmers of hope and possibility during the Keystone debate. Several of my Republican colleagues made the argument during the debate on Keystone that while climate change is a real problem, we must be aware of how energy costs influence economic activity.

I could not agree more. We don't hear this often from folks on my side of the debate, but price matters. No climate policy is a real solution unless it strengthens both the national and global economies. As we pursue clean energy, we must understand its impacts on consumers—especially individuals and families in lower income communities—as well as businesses. We miss an opportunity to find common ground if we move too quickly past the questions of cost and the social and economic context in which this transition is going to occur.

We can contend with these challenges in Congress through a legislative solution. We can create incentives, create market-based mechanisms, look at regional differences, and fund R&D to help develop new and less-expensive solutions. EPA certainly has the authority and the obligation under the law to regulate carbon and other greenhouse gases. I support the President's Clean Power Plan because carbon pollution is real and it ought to be regulated under the Clean Air Act. If we want to be more comprehensive and if we want to be more nuanced and more flexible and more responsive to communities, we need a bill. Structured properly, a bill has the advantage of creating economically efficient solutions that can reduce carbon pollution from a much wider range of sources. That is why a well-designed fee on carbon is critical for our economy and our environment.

I understand the politics are nearly impossible right now, but if we think

about our ability as legislators to remunerate communities struggling during a transition, to ameliorate certain economic challenges, we may agree that legislating provides us the tools to achieve greater pollution reductions at a much lower social and economic cost. So once the Clean Power Plan is established, once it is litigated, and once it is full-on reality, I believe there may be room for compromise.

One more point on the issue of price. We have to do our calculations on an all-in basis. That includes tax expenditures, environmental damage, health impacts, and other so-called externalities. There is plenty of good research which indicates that clean energy technology is already competitive with fossil fuel technology when all costs are added in. Additionally, the cost of solar, wind, and energy efficiency is dropping precipitously and in many places is competing successfully in the free market, even before we consider the costs of pollution.

We will have a couple of battles that are unavoidable—on the Clean Power Plan and likely another run at Keystone—but there are a couple of areas that in my view don't have to be a battle. They are energy efficiency and energy research.

We ought to start with the Shaheen-Portman energy efficiency legislation. I have little doubt that Democrats would support this as a stand-alone bill. Energy efficiency is just common sense, and the energy experts remind us of an idea our mothers and fathers taught us growing up: waste not, want not. In other words, the straightest line toward saving money for people, businesses, and institutions is to help them adopt the latest energy efficiency practices and technologies.

Even this has unfortunately become a partisan issue in the last several Congresses with people worried that light bulb efficiency standards were part of some Orwellian plot. But that is not what these Department of Energy standards do, and it is not what Shaheen-Portman does.

At its core, energy efficiency is simply this: Use less but get the same result. Using less means paying less. Getting the same result means not having to sacrifice our way of life. The idea is not to ask people to do without, the idea is to just get more for our money. It is an old-school, conservative idea. Of course the Shaheen-Portman bill doesn't cost the taxpayers a dime, and projections are that it will create nearly 200,000 jobs.

I also think there is a lot of room for good bipartisan work in advanced technology research in the energy space—the kind the Department of Energy did for the State of Hawaii in developing a grid system that can accommodate unprecedented levels of intermittent renewable energy, the kind that made major advances in hydraulic fracturing, the kind that has helped the price of solar panels drop 80 percent since 2008, the kind that is making breakthroughs in battery storage, which has fallen in price by 40 percent since 2010, and the kind that is working on carbon capture and sequestration.

America must lead on energy, and that requires us to do the kind of basic research that private companies can eventually use. A relatively small increase in research funding—both on the fossil and renewable side—has been shown to make an enormous impact on our economy. Investments in renewable and fossil fuel electricity generation, distribution, and transmission systems, grid stability and security, and fuel systems will enable America to lead in energy for decades to come.

These are the kinds of investments we would see in a comprehensive energy bill. I was so encouraged last week that the chairwoman of the Energy and Natural Resources Committee, the Senator from Alaska, has indicated her desire to pursue comprehensive legislation this Congress. The Senator from Alaska is a very skilled bipartisan legislator, and I am looking forward to working with her on these issues. I am especially encouraged by her openness to climate provisions as part of that bill, something she mentioned as recently as last week. Just as she has listened to the concerns I and others have raised about climate change during the Keystone debate, so should we listen to her call for reliable, affordable, clean, and diverse energy supplies.

Several energy proposals contained within the President's fiscal year budget could become a part of a bipartisan bill, including ideas to more fully promote carbon capture and sequestration technologies and protect coal workers and their communities as we transition. The concerns of communities that have coal-based economies are real and legitimate and I believe any true climate solution must prioritize solutions for every American. The President recognized that and proposed $55 million next year to help affected communities diversify their economies, offer job training, and ensure a good transition.

This will require compromise. It will require those of us on the left to concede that fossil fuels aren't going to disappear instantaneously, and it will require those on the right to recognize that investing in clean energy technologies doesn't necessarily mean picking winners and losers. We have wind energy in nearly all States—in fact, more in Republican than in Democratic States—and we have tea party members everywhere who love the freedom and liberty that distributed generation—rooftop solar—offers. We also have clean energy progressives, including myself, who understand that we have to deal with the energy system we have, not the one we wish we had.

The areas I have mentioned are not the only opportunities for bipartisan compromise, but we do need to start a dialogue, either on the floor, in committees or in informal discussions, about what we can actually do. As we consider a policy solution, let's ask the following questions: Can it be enacted into law? Will it advance American energy security? Will it strengthen the economy and provide economic growth? Will it reduce pollution?

There are a few areas where we are going to fight—there is no avoiding it—and that is OK. But there is, for the first time since I arrived, a glimmer of hope that we may be able to find common ground on some of these issues and begin a serious discussion about tackling American energy policy and climate change.

I yield the floor.

Madam President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. MURPHY. Madam President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

GUN VIOLENCE

Mr. MURPHY. Madam President, this is the first time I have come to the floor to speak on this issue while the Senator from Iowa has been presiding. Over the last 2 years, since the mass tragedy in my State, in Sandy Hook, CT, I have come to the floor once every week or so to give voice to victims of gun violence all across this country. I have told the story of the beautiful 6- and 7-year-olds as well as the teachers and professionals who were killed that day.

The fact is that every day across this country there are two to three Sandy Hooks that happen. There are 86 people killed by guns every day in this country, 2,600 a month, and over 30,000 a year. The statistics, unfortunately, have not compelled this body to action. We have done nothing—zero—about this national tragedy since Sandy Hook. That is a stain upon the conscience of this body that is impossible to erase. My hope is that by coming to the floor and speaking about who these people actually are, maybe it will prompt us to have a conversation about how we can make sure these numbers aren't eliminated; they are never going to go away but to make sure they are lower, that they are less than these numbers, the highest in the developed world.

Let me speak first about an extraordinary young man, 44 years old, who was killed on January 20—just about 2 weeks ago—in Boston, MA. His name was Dr. Michael Davidson. He was shot by a gunman who walked into Brigham and Women's Hospital. The gunman was the relative of someone who had been under the care of Dr. Davidson who clearly had some major illness that prompted him to think he could solve his grief by shooting the doctor who had cared for his loved one. Dr. Davidson was known at Brigham and Women's Hospital for his gentle way